





















Why are we here?

Low overflights kill seabirds.

The noise and shadow of low flying aircraft disturb seabirds from breeding activities Adult birds can abandon their eggs or chicks, which cause deaths of seabirds for multiple generations.

Pilots can help!

For your safety and theirs maintain 2000' AGL when flying with National Marine Sanctuaries.

Protect these valuable symbols of our coastal heritage.



Overview

- Background NOAA and the National Marine Sanctuary Program
- The plight of the seabirds
- Other wildlife in the sanctuary
- Ramifications of low overflights
 - Impacts to wildlife and you!
- Regulations protecting wildlife from disturbance
- How you can help!

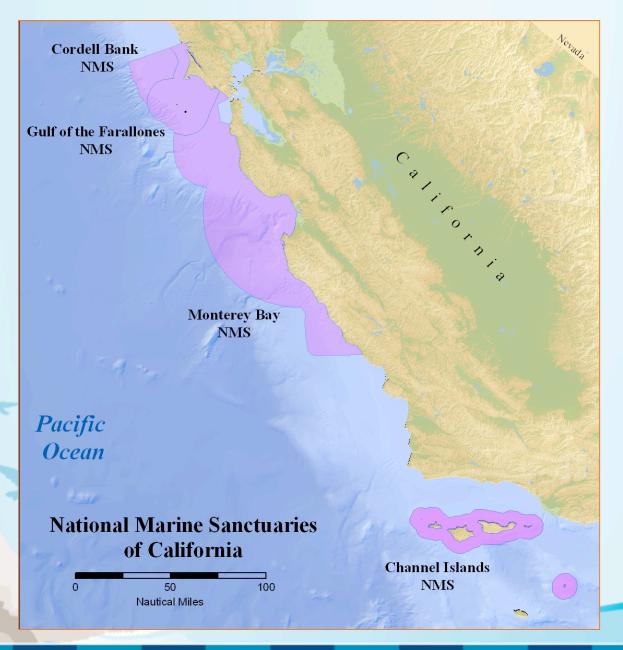


Our National Marine Sanctuaries

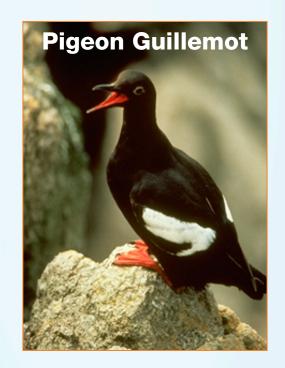


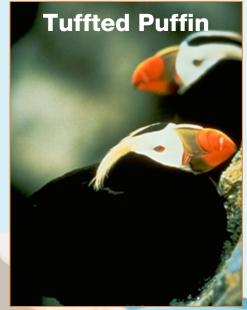


California Sanctuaries











Common Murre



Range:

- Alaska to California
- Most southern colony at Hurricane Point Rocks, Big Sur

Breeding:

- Colonial in dense associations of birds
- Returning to the same site year after year
- Lay one or two eggs, if lost don't usually lay another
- Nesting success can be affected by availability of food

The Plight of the Seabirds

These important seabirds populations have suffered greatly

Seabird populations are in decline from historic population levels

Case Study: Common Murre

1-3 million Common Murre on Southeast Farallon Islands – 1800's.

1827: Egging began;

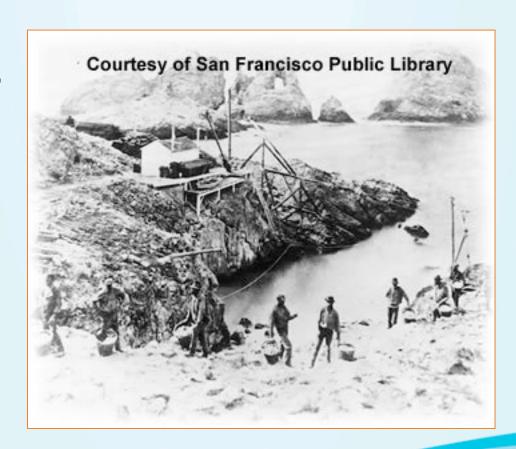
1849: Commercial egging started

and continued through 1904.

Only 20, 000 Common Murre in 1912!

Slowly the population rebounded to about 60,000 in 1975

From 1982-1989 Common Murre population was reduced by 50%!



Seabird declines have come from gill net fishing and oil spills.





- ❖ Apex Huston Oil Spill (1989) killed 10,577 seabirds, including 7,488 Common Murre including a colony of 3,000 at Devil's Slide Rock
- ❖ T/V Command Oil Spill (1998) killed 1,490 seabirds
- Cosco Busan (2007) estimated seabird deaths in the thousands



From Tragedy comes Hope:

Prosecution of oil tankers leads to restoration efforts!

Common Murre Restoration Project at Devil's Slide Rock, Pacifica

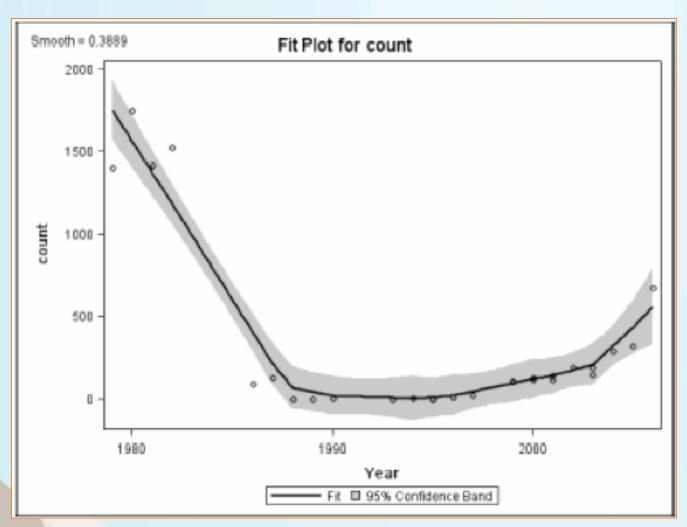




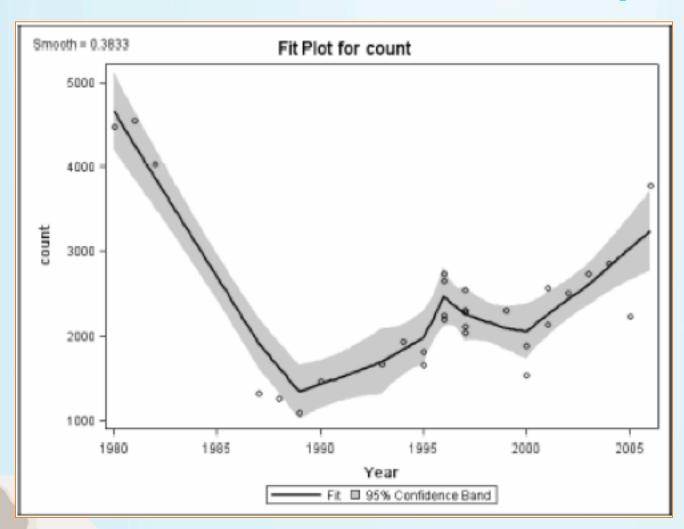
Amazing recovery has begun: From 0 in 1996 to 392 breeding pairs in 2008!

More work to do: Looking to reach historical colony size of 3,000.

Common Murre Population Trends 1979-2006 Devil's Slide Rock



Common Murre Population Trends 1979-2006 Castle/Hurricane Complex



Seabird populations are not safe yet!

Some species are still in decline!

Disturbance comes from 3 main sources



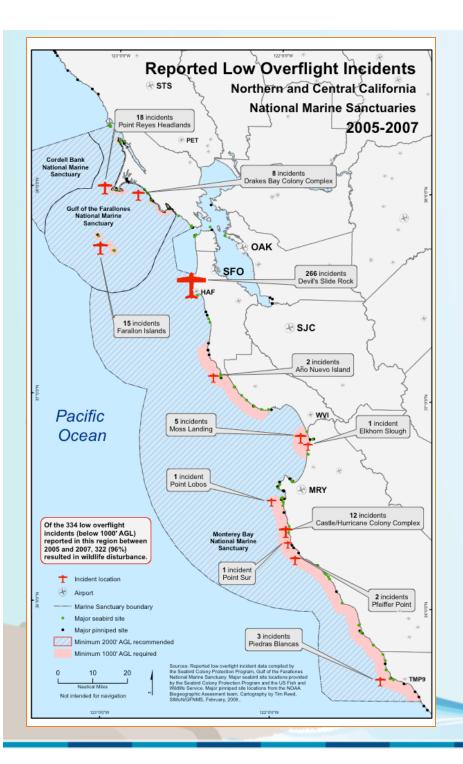
1. Low Flying Aircraft



2. Close approaching boats, Kayaks, personal watercraft



3. Humans on Foot



Of 334 low overflights (flights below 1000'), 96% resulted in wildlife disturbance.

Pilots can help!

By maintaining 2000' AGL within 1/4 of the coastline you Can prevent further disturbance to seabirds and other animals And keep yourself safe.



Be part of the recovery of seabirds! Be a steward of our coastal heritage!

Seabird Reactions to Low Flying Aircraft

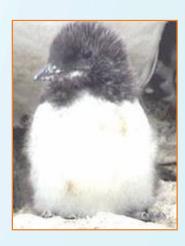
The Fear Factor:

- Seabirds won't nest in places where they are disturbed
- When numbers on one colony get too low, new seabirds will not come, which can lead to colony abandonment

Generations Lost:

One low overflight or repeated disturbance during breeding:

- Can dislodge eggs and chicks from nest sites.
- Predators can gain access before parents return up to a day!
- Eggs and chicks are lost from exposure to heat or cold.
- Chicks may fledge early.





Flying Seabird Safe

- Low overflights can be hazardous to pilots!
- Birdstrikes cause more than \$600 million in damages each year, and have taken the lives of over 350 people worldwide!
- www.birdstrike.org
- The National Wildlife Strike Database: http://wildlife.pr.erau.edu/public/index1.html







Avoid a Birdstrike

- Avoid areas with known risks, such as marsh lands, seabird nesting areas, landfills, and migration routes.
- The Pacific Flyway migration route extends along the entire West Coast.
- Don't fly at low altitudes during the seabird breeding season (February-August)









Mammals of the Sanctuaries









Marine Mammals React to Low Flying Aircraft

Whales and Dolphins:

- Sensitive hearing
- Milling & resting animals most sensitive
- Whales exhibit avoidance reactions & change behavior in response to planes
- Circling can be the most disturbing vs. a single pass

Seals and Sea Lions:

- While resting animals can be frightened into the water causing stress
- During pupping season mother and pup can become separated
- Stampedes can cause pups to be trampled



NON-FAA OVERFLIGHT REGULATIONS

Department of Commerce (DOC):

- NOAA
 - National Marine Sanctuaries
 - Marine Mammal Protection Act

Department of Interior (DOI):

- US Fish and Wildlife Service
 - Migratory Bird Treaty Act
 - -Endangered Species Act
 - -Airborne Hunting Act
- National Parks, Forests, Refuges

Overflight restrictions within National Marine Sanctuary Program



All four California Sanctuaries recommend a 2000' altitude for aircraft

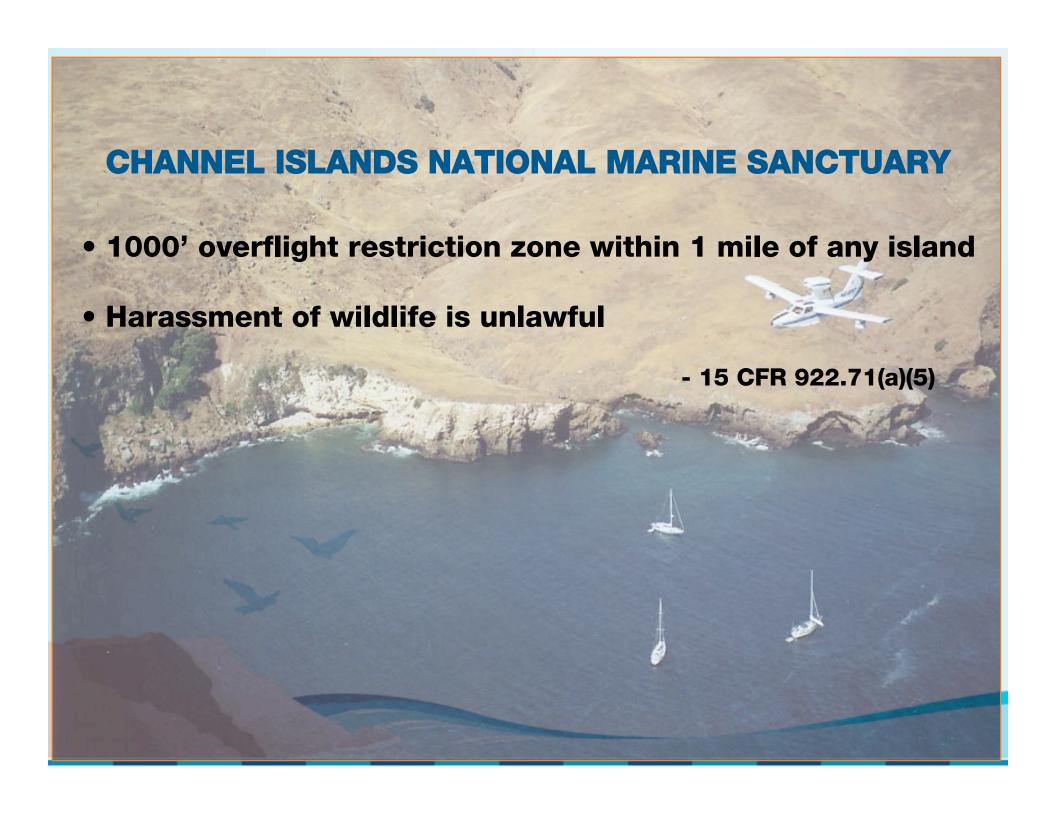
GFNMS, MBNMS, CINMS have specific regulations prohibiting flights below 1000' in certain geographic areas.



FAA SECTIONAL CHARTS

NOTICE TO PILOTS

Pilots are requested to maintain a minimum altitude of 2000' AGL over the CHANNEL ISLANDS NATIONAL MARINE SANCTUARY





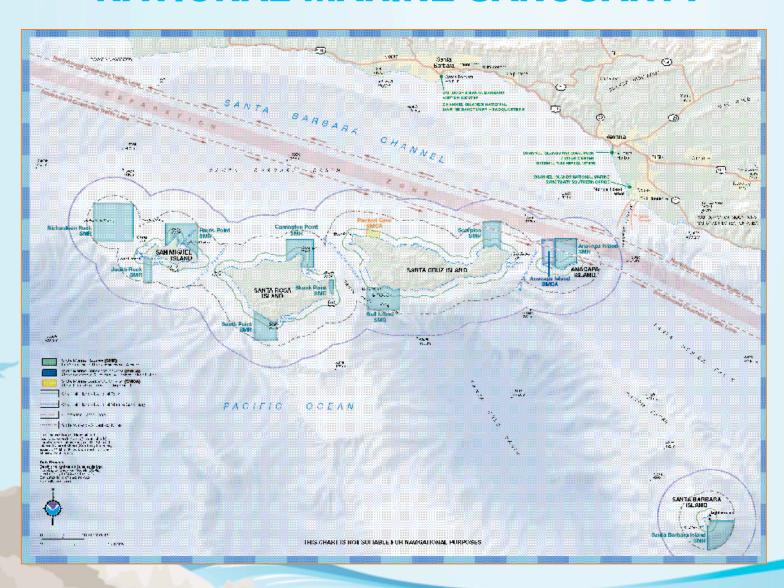


• 1000' overflight restriction zone within one mile of the Farallon Islands, Bolinas Lagoon, or any state designated area of Special Biological Significance

Harassment of wildlife is unlawful

- 15 CFR 922.82(a)(5)

CHANNEL ISLANDS NATIONAL MARINE SANCUARTY







OTHER PROTECTIVE ACTS



Endangered Species Act

Illegal to kill, harm, harass, possess or remove protected animals from the wild.
Within the sanctuary we have the Least tern,
Steller sea lion, Blue whale and Fin whale.



Marine Mammal Protection Act

Prohibits any act of pursuit, torment or annoyance that has the potential to injure a marine mammal in the wild

Migratory Bird Treaty Act

Provides protection for migratory birds, makes it illegal to pursue, kill, collect, etc.; fines up to \$250,000 may be levied for individuals in violation

US FISH AND WILDLIFE SERVICE

Principal federal regulatory agency for land animals, plants, and fresh-water fish and invertebrates.



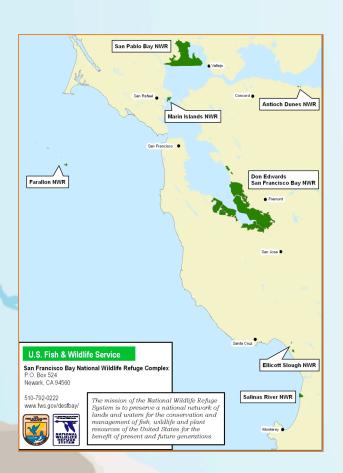
Airborne Hunting Act (50 CFR 1911)

Prohibits disturbance to wildlife by aircraft.



FLIGHTS OVER US WILDLIFE REFUGES FAR/AIM





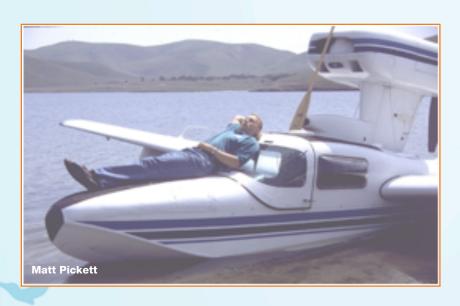
Pilots are requested to maintain a minimum altitude of 2,000 feet over US Wildlife Refuges, including:

- National Parks
- Monuments
- Seashores
- Lakeshores
- Recreation Areas
- Scenic Riverways
- National Wildlife Refuges
- Big Game Refuges
- Game Ranges
- Wildlife Ranges
- Wilderness and Primitive areas



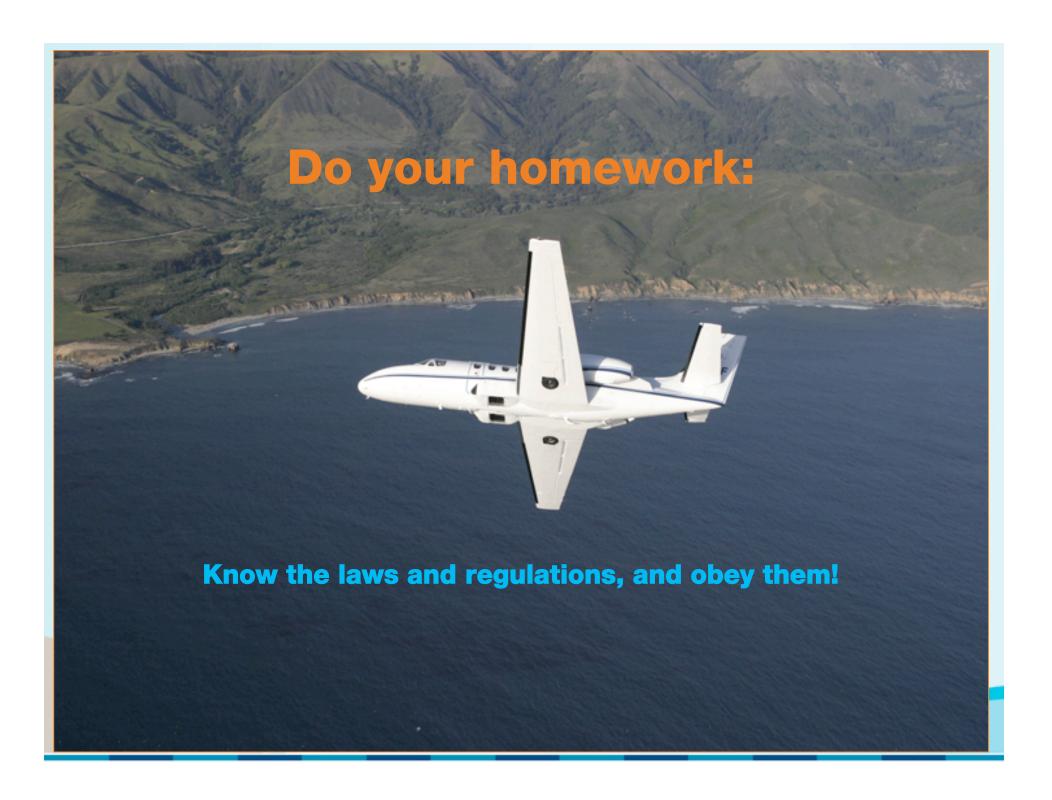
Pilots Help the Recovery of Seabirds:

Make it easy:



Follow the charted recommended altitudes.

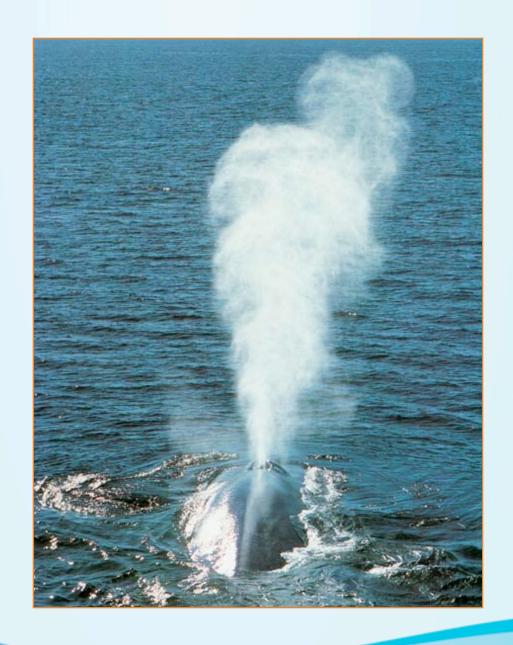




Fly Seabird Safe:

Avoid flying directly over seabird colonies and marine mammal haul outs.

Avoid making multiple passes over areas with sensitive wildlife.





Join the network and protect our natural coastal heritage!

Sign the mailing list!

Request a presentation!

Order posters or pilot guides!

Visit our website!
http://farallones.noaa.gov/pilots

